From Data Collection to Public Health Action

CalREDIE's **NEW** CHALLENGE

CalREDIE Newsletter, Summer 2012

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California State Epidemiologist

Surveillance is a critical component of the fabric of public health. Successful public health programs use timely, accurate, and translatable data to effectively carry out their mission. In infectious disease programs, surveillance data allows us to monitor trends, detect the occurrences of emerging or re-emerging diseases, initiate timely epidemiologic investigations, break the cycle of disease transmission, and evaluate the effectiveness of our public health intervention activities. The California Reportable Disease Information Exchange, CalREDIE, is the tool that we use in California to collect surveillance data for public health action. We have spent a few years now developing this tool, refining it, implementing the system in local health departments (LHDs), and working with you side by side to maximize its strengths and limit its weaknesses.

We find ourselves at a challenging crossroads to move CalREDIE into a phase of actionable public health information, real-time alerting for early response, and provision of information to those who need to know.

To face this challenge the CalREDIE team has been working feverishly on application and organizational enhancements. We are near completion of Version 10 (v10) with very important changes that will provide you more functionality. We are also realigning and organizing resources internally to move CalREDIE from its current home in the Division of Communicable Disease Control (DCDC) Office of Information Technology to the DCDC Communicable Disease Emergency Response Branch; this move will focus CalREDIE activities on the core of disease surveillance and epidemiology within DCDC Programs and will be led by a team of senior epidemiologists. In addition, important enhancements in report generating, data downloads, data sharing agreements, and alerting are in the final stages of development. In the upcoming months, a high priority activity for the CalREDIE team will be collaborating with you to increase the number of Provider Portal (PP) users in your jurisdictions. Lastly, we are moving, as rapidly as resources permit, on the implementation and full integration of the Electronic Laboratory Reporting (ELR) system into CalREDIE that will allow us to receive lab results for notifiable diseases in real-time and to meet the mandates of AB 2658.

Let me briefly cover the current state of CalREDIE resources and finances. We have been fortunate to have federal funds to invest in CalREDIE to configure and deploy the application and the in-kind contributions of DCDC program staff. Our fiscal projections show that we have enough resources to maintain CalREDIE at its current level of configuration and support, barring fiscal disasters beyond our control. Additional enhancements and an increased level of user support will require additional resources.   We will be engaging key stakeholders in fiscal and support discussions in the near future. I hope you all enjoy reading the CalREDIE Newsletter and know you will find it informative and stimulating. **Enjoy the rest of your summer!**

Rollout status & plans: Today **57** LHDs are using CalREDIE to report Tuberculosis, **53** LHDs are using the system to report all diseases, and providers from **12** counties are regularly submitting Case Management Reports (CMRs) via the Provider Portal.

The CalREDIE team is collaborating with the remaining non-CalREDIE LHDs to either implement CalREDIE or submit data to CDPH in a standardized format. Some counties still maintain multiple systems for communicable disease surveillance and reporting. We have engaged with Programs in those counties to discuss adoption of CalREDIE and opportunities for collaboration. The CalREDIE team kicked-off a workgroup to discuss current data transfer processes and options for streamlined data capture and transfer. By the end of 2012, we expect that 95% of California LHD programs will be using CalREDIE as their system of record and we will have a more efficient data exchange with the remaining counties/programs. At that time CDPH will cease its support and maintenance of AVSS -CMR and will no longer rely on data feeds.

Training Opportunities: CalREDIE General (Refresher) Trainings will be offered this fall. TB disease specific trainings have been recorded and will be provided to LHDs upon request. Please contact *CalREDIE Help* for more information.

New Users – How to get started & familiar with CalREDIE: Please contact *CalREDIE Help* to assist your new users to get registered and ready to use the system. We have an introductory package with basic information to get users started and familiar with CalREDIE.

Sharing Success Stories: We are continually impressed with the inventive and creative ways our users apply CalREDIE's functionalities in their everyday work. It is always exciting to hear about a new approach that county staff have implemented to improve internal communications and create workflow efficiencies. We are interested in hearing your story – What has proved useful? What you would like to see improved? How can the CalREDIE team be of assistance to facilitate use the system to its full potential? If you are curious about how another county has designed their workflow processes, is utilizing CalREDIE functionalities, or their success stories, - we would be glad to facilitate an onsite meeting or a conference call.

CalREDIE Semi-annual Meeting: We are hosting the CalREDIE semi-annual meeting to bring together the CDPH team, CalREDIE users, and local Health Officers to provide a system up-date, demonstrate key changes, share news, provide insights into our internal management team discussions and engage you in important strategic discussions. This meeting is being scheduled for early September 2012. Stay tuned!

Participation Agreement:
A Different Approach to Collaboration

With a paradigm shift in the way we communicate, exchange and report communicable disease data, there is a need for up-dated use of guidelines and security policies that conform to statutes and regulations governing health information exchange. In collaboration with the CDPH Offices of Legal Services and Information Security, a new CalREDIE Participation Agreement (PA) is being developed to replace the current CalRE-DIE Data Use Agreement (DUA).

The PA will be an agreement between all parties that access/use CalREDIE. We are basing the PA in part on the State's framework for data use and exchange, system interconnection, and level of service agreements. The PA follows a multi-party agreement framework, that in contrast to our current point-to-point disclosure-type agreement, is a collaboration-based *trust agreement*. While the DUA focuses on the obligations of the LHD to safeguard CalREDIE data, the PA shifts the framework to consider the respective rights, obligations, roles, and responsibilities of all parties that access/use CalREDIE.

In building the PA, we began by reviewing LHDs' feedback on the DUA. *"Most importantly (and reacting to the comments we received from LHDs), CalREDIE (the State) will have clear obligations under the Agreement with respect to its conduct and in relation to its separate obligations (e.g., to report breaches)"*, says Stephen Stuart, CDPH Office of Legal Services Senior Counsel and Privacy Officer. CalREDIE wants to ensure that the PA puts forward fair and reasonable expectations, given the current capabilities of our partners and applicable laws.

We expect to release a draft of the PA in fall 2012, preceded by a workgroup with our stakeholders to review and discuss the content and its implementation.

Provider Portal Five additional LHDs implemented the PP this spring, including Butte, Contra Costa, Kern, San Luis Obispo, and Tulare. This brings the total number of jurisdictions actively using the portal to 12 with hundreds of providers. After the v10 go-live in fall, the CalREDIE team will work with additional jurisdictions to implement the PP.

V10 We have received the Alpha-3 software revision of v10 from our application vendor, Atlas, earlier this spring. After several weeks of intensive testing, we identified a few issues that must be corrected before we can go-live with v10 and we will be working with the vendor to correct the issues and finalize v10. We expect to receive the corrected version later this summer and then go-live with V10 in fall 2012. Going live with v10 is one of the highest priorities for DCDC.

ARNOLD is the email alerting component of CalREDIE and used by CDPH staff and the 12 PP counties. We are applying lessons-learned from the first ARNOLD implementation phase and plan on offering an updated version of ARNOLD to other CalREDIE jurisdictions in early fall 2012.

Partnership with OEHHA: Pesticides Illness Reporting
expanding CalREDIE to new programs/diseases

We are excited to announce our partnership with the Office of Environmental Health Hazard Assessment (OEHHA) and the Department of Pesticide Regulation. (DPR) This is the first partnership with organizations external to CDPH, allowing conditions other than communicable diseases to be submitted through CalRE-DIE.
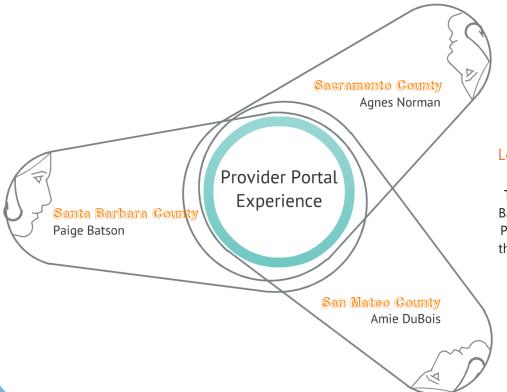
CalREDIE & OEHHA DPR teams kicked off discussions over a year ago to execute agreements to allow Pesticide Illness-related data to be captured in CalREDIE. After reviewing options, we began building CalREDIE to allow LHDs to submit Pesticide Illness Reports (PIR) for receipt by the California Department of Pesticide Regulation and OEHHA. PIR functionality will be available in v10. As our partnership continues, we expect medical doctors (providers) to begin submitting PIRs, and to have the option of submitting the Doctor's First Report of Occupational Injury or Illness for those instances that are related to pesticide exposure.

PP

CalREDIE

ARNOLD

Implementation of the Provider Portal can be divided into three steps:

1) Provider Outreach. This step focuses on recruitment and training of providers. This step is completed by the LHDs who already have close relationships with their providers. CalREDIE provides LHDs with outreach and training materials, including a PP Factsheet and Quick-Start Guide.

2) LHD Training. This step entails training local health department users on use of the CalREDIE Disease Incident Staging Area (DISA). All reports submitted by providers enter into the DISA where LHD users can review the reports and then officially import them into CalREDIE. This training is offered via WebEx and typically takes about 1 hour. After the DISA training, LHD users are able to use the CalREDIE staging site to practice using the DISA.

3) Provider Account Set-up. This is a joint effort between the LHD and *CalREDIE Help*. All providers must submit a Reporter Account Form to their LHD, who will approve the form and submit it to *CalREDIE Help*. An account will then be created and an email with the username and password sent to the provider. The provider can then begin using the PP.

PP implementation can begin slowly, adding only a few providers or facilities at a time. As the LHD becomes more comfortable with recruiting and training providers and using the DISA, more providers can be added. How quickly providers are added is really determined by LHD.

Sacramento County
Agnes Norman

Provider Portal
Experience

Santa Barbara County
Paige Batson

San Mateo County
Amie DuBois

Lessons Learned from implementing the Provider Portal

The CalREDIE PP liaisons from Sacramento, San Mateo and Santa Barbara have graciously offered to share their experiences with the Portal, including how they conducted outreach and recruitment of their providers, the implementation process, their overall PP experiences, and the value of the PP to their work.

County: Sacramento
Liaison: Agnes Norman, RN BSN PHN, Lead Communicable Disease Nurse
CalREDIE PP Go live: August 2011
# of reporters: 250
# of weekly reports: 500-1000

Agnes Norman and her Sacramento team have used the PP since 2005 as a part of their WebCMR system. When the Sacramento County team transitioned to CalREDIE they brought many of their providers who were previously reporting electronically into the CalREDIE Provider Portal. Ms. Norman provides the following lessons-learned and tips to CalREDIE LHDS:

Outreach & Recruitment of Providers: "When we started with the recruitment of providers we developed a Power Point presentation and reached out to large hospitals in our area. We first targeted infection control practitioners (ICPs) with goal of getting them to buy into how simple it would be to report online compared to handwriting everything out on the hard copy, making copies of the lab report and then having to fax everything over to us. Since we transitioned to CalREDIE we really have not had enough staff to go out and conduct further recruiting. Word-of-mouth and a soft, over the phone-sales pitch has enabled us to recruit additional providers. Every day we are getting calls from providers inquiring how to submit a CMR and we inform them that they can still do this in the old way or report online via the Provider Portal. Our office assistant shares with them how easy it is to report online and walks them through it while he is on the phone with them."

Experience & value: "Providers are generally very thrilled to start this process. When they found out that they can upload files into the electronic filing cabinet that was even a bigger plus. This feature really cuts down the time otherwise required to copy and fax the lab reports. In the event that we need to send the admin and discharge notes back to a provider, those are also immediately available, and there is no more need to print and fax anything.

Also, what saves a lot of time for the LHDs and on providers' end is being able to automatically flip a jurisdiction based on the patient's county of residence. A Sacramento hospital can report Placer County's resident into the PP and I can just switch it to Placer; and because Placer is using the PP they will see it right away – so it is saving everyone a lot of paperwork and hustle."

Advice to counties: "PP is relatively easy to use and I would definitely recommend it to other counties. With Sacramento County being a very large county, it has cut down some of our paperwork. The majority of our paperwork will be decreased when we go with the ELR so that is something that we are highly looking forward to. For some of the smaller counties, to get their providers to report online, I think that this would be a huge time saver for them."

County: Santa Barbara
Liaison: Paige Batson, MA, RN, PHN, Disease Control & Prevention
Program Director
PP Go live: February 2012
# of reporters: 80
# of weekly reports: 100 +/-

Outreach & Recruitment of the Providers: "The training that we received from CalREDIE was very helpful. The step by step guide was essential for us; it is simple and succinct; thus assists with encouraging participation. In order to use our limited resources most effectively, initially we prioritized and targeted our providers: We chose to target a group of large hospitals as our first tier, and we used them as a pilot for the PP implementation. This process worked nicely – we absolutely had no problems in getting our hospitals on board. We, then, prioritized our big reporters such as Planned Parenthood, and other big community clinics. We approached them and demonstrated how simple the Provider Portal is and - Voila – it was great!

Once we got all of our big players on board we moved to the masses (smaller providers in our jurisdiction). We automated the implementation process – announcements were sent out via various Newsletters and were published on our Website informing everyone about our electronic reporting opportunity. As a part of this outreach we provided a basic overview of the Provider Portal and its benefits as well as enrollment guidance to providers (how to assess their IT readiness, how to enroll and begin using the portal, etc.) Since implementing this approach, we have seen a consistent increase in providers enrolling. Now, every reporter that is submitting a CMR to us is getting automatic invitation to enroll into the PP. This approach has proven to be very simple and easily adaptable by providers – and soon - we realized that there is no longer a need for an onsite outreach and trainings.

Changing our recruitment process was really huge – it would have been impossible to directly outreach with all 80 reporters.
Initially we only had 3 hospitals and 2 Planned Parenthood sites – we went from 5 to 80 enrollees in less than 4 months. 75 – 80% of all the reports are currently arriving through the Provider Portal.

We know that this process works well because our providers are consistently reporting via the PP. We have not experienced providers going back and forth between faxes and PP. Ultimately; we would like to see everything coming through the Provider Portal.

We maintain providers" distribution list that we use to connect with them and send out updates and announcements on the quarterly bases. We like to stay in touch with our PP user. We use this communication to check in and see if there have been any changes to staff and find out if they have any questions. This has been a good way to communicate with the masses."

cont. Santa Barbara story

Experience & Value: PP is a very simple application. This functionality has absolutely increased our efficiency, our timeliness and our resources in that we don't have to duplicate data that has already been entered/completed by someone else.

Another aspect of the Provider Portal that we like is the standardization of information. In the past when we had paper CMR, we have been missing so much information, many fields weren't complete... and now we are seeing lot more completeness and standardization in terms of the information that we are getting because we are using PP.

With the implementation of the PP we are experiencing a near - real time entry of communicable disease reports. The PP allows us to enter a case and track its status while we wait for the CMR or lab on a particular case. This is very important as often there is a lag between the receipt of CMRs and lab reports.

At any given time we are able to see what reports are coming in, whether we have all the information or partial – and then we merge the cases or follow up and request for more information. PP has streamlined our process, we are working much more efficiently and comprehensively in that we are able to account for every report coming in to our system Disease Control unit.

When we are dealing with an outbreak – because of the PP near- real time aspect– we can see what is going on at any given point in time. Those of us in a supervisory or epi roles who currently have the access to ARNOLD - we are able to observe when there is an outbreak – everything gets more real time – and we are able to zero in pretty quickly – so that's one of the reasons why we want more reporters brought on the PP.

Advice to Counties: If someone does not have an electronic mechanism for gathering/processing their CD reports, they need to implement the electronic process available in CalREDIE. What is nice about CalREDIE – is that we do share data – it is easy to exchange information and cross-refer data to other jurisdictions via the Provider Portal.

It is simple and efficient - that is our biggest selling point – it cannot be any simpler than that. Providers actually have the simplest part. LHDs will obviously need to dedicate some attention to this effort just like with any other project. Transitioning to the PP should not change a jurisdiction's workflow if you consider that it simply allows you to receive the CMR in an electronic format with basic demographic information and lab/treatment information. If anything, you can expect it to enhance your resources and disease reporting and surveillance as a result of the efficiencies it provides.

Our goal is to expand the PP and make it the primary reporting mechanism in Santa Barbara County. Given the electronic age where everyone is moving to electronic health records, we expect a very smooth transition with remaining providers moving forward."

County: San Mateo
Liaison: Amie DuBois, RN, NP, PHN, MSN, Senior Public Health Nurse
PP Go live: October 2010
# of reporters: 50-75
# of weekly reports: 25- 40

Outreach & Recruitment of the Providers: "CalREDIE provided training and supportive documents; also, frequent conference calls during the initial rollout, now regular, monthly calls with updates/clarifications. Support team is timely and helpful with problems/queries. We had to learn the essential components of the portal first, then develop a minor training module for providers, contact them to assess interest, then schedule training/orientation/ obtain registration documents, then be available for questions and QA of reporter accuracy.
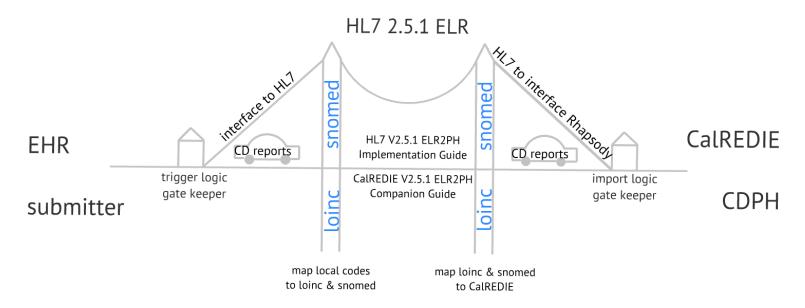
We chose providers based upon their frequency of, and compliance with, essential reporting functions (e.g., infection control and infectious disease providers are great reporters and are extremely compliant with reporting); additionally, we chose to initially include providers within our county health system, as we work very closely with them and communicate frequently with them around multiple issues. We sent a mass email to target groups/office managers/leads for specific departments. We selected specific groups based on frequency of reporting/prior history of accurate reporting. After hearing back from providers, we scheduled meetings/trainings to demonstrate the system."

Providers Initial Reaction: "Providers fell into two categories: really interested because they like to do everything electronically anyways or interested and able to implement a new system as long as the amount of time involved did not exceed the amount of time it previously took them to complete a paper CMR.

Some providers are very consistent and report everything on a routine basis. Others have been trained, registered, and, although we are aware that reportable diseases have come through their facility (based on lab reporting), they have not really used the portal. This could be related to an internal facility policy such as who is actually responsible for reporting."

Experience & Value: "We like this feature – we are always interested in increased movement towards electronic reporting and data management; we like the opportunity to meet with providers in person for training, as this gives us the chance to reinforce reporting requirements in general and answer questions about how we use the data."

Advice to Counties: "We would recommend PP to CalREDIE users. It's another way to get familiar with CalREDIE, and to evaluate what policies are in place regarding reporting for various facilities. It is also a mechanism to get to know providers in the county and find out how much they know about reporting. There is a level of effort in recruiting and training providers – however, this effort goes a long way because the LHD has the opportunity to discuss general reporting issues, talk about ways the system can benefit the facility (e.g., the provider can also run reports to track what diseases have been reported from their facility, etc.)."

HL7 2.5.1 ELR

EHR
submitter

interface to HL7

snomed

loinc

trigger logic
gate keeper

CD reports

HL7 V2.5.1 ELR2PH
Implementation Guide

CalREDIE V2.5.1 ELR2PH
Companion Guide

map local codes
to loinc & snomed

snomed

loinc

CD reports

HL7 to interface Rhapsody

import logic
gate keeper

map loinc & snomed
to CalREDIE

CalREDIE

CDPH

Pilot Partner/Submitters preparation steps

1. **Obtain and Understand ELR2PH Message Standard** - this is described in the CalREDIE companion to the HL7 V2.5.1 ELR2PH Implementation Guide that constrains and identifies selected supported items required by California.
2. **Connect and Test the Transport Method** – this is a secure FTP (SFT from OTech), which is a proven, industry-compliant secure transport method.
3. **Map Standard codes.** Cross map local codes for reportable diseases to LOINC and SNOMED codes from RCMT in order to identify codes used to report to public health.
4. **Create HL7 Messages.** Develop trigger logic to identify and extract reportable results from the data stream. Construct HL7 ELR2PH compliant messages for reporting to public health. Send messages to public health and receive ACK for success and NAK for failure.
5. **Send live ELR2PH Messages.** Commence live result reporting in an automated fashion.

CDPH preparation steps

1. **Publish ELR transmission Standard** – this is the companion guide to the HL7 V2.5.1 ELR Implementation Guide that constrains selected items specific to California.
2. **Establish and Test Transport Method** – this is secure FTP (SFT from OTech), which is a proven, industry-compliant secure transport method.
3. **Map Standard Codes.** Extract LOINC and SNOMED codes from RCMT in order to understand which codes can be used to report to public health. Develop cross mapping from standard codes to the reportable CalREDIE disease category.
4. **Parse and Validate Messages, including ACK/NAK.** Align Rhapsody to programmatically accept messages from submitters, decipher the meaning, and route the message properly within CDPH, send ACKnowledgement (ACK) and Negative ACKnowledgements (NAK) to submitters based on HL7 ELR constrained profile.
5. **Consume Messages into CalREDIE.** Instantiate a disease incident. Populate the lab tab in a particular incident.

What have we learned from the pilot that can benefit other submitters?

- There may be a mis-perception that a "certified" Electronic Health Record (EHR) with an electronic lab reporting feature is a push-button ELR solution. There can be significant variations among EHR products and different installations of the same product in terms of ability to form compliant ELR2PH messages.
- Noteworthy hurdles to overcome include mapping local codes to standard coding (LOINC and SNOMED), developing robust trigger logic, making the connection to secure FTP for messaging, and constructing ELR messages compliant with both HL7 V2.5.1 ELR2PH Implementation Guide and the California ELR2PH Companion Guide.
- The chief benefit of ELR is a significant decrease in the time lag from obtaining reportable lab results to notifying public health authorities as prescribed by state health laws and regulations. Additionally, submitting organizations may see a significant decrease in the amount of time spent sending lab reports by mail, fax, or phone.
- Electronic lab reporting may take a considerable investment of time and effort to set up the data feed, but after the initial set up, it should be a lower degree of effort compared to manually sending reports by other means in an ongoing basis.

What is trigger logic? Trigger logic is a set of rules within the submitter's information system that controls which lab results get reported to Public Health. Based on a concept of reporting only information that is required by applicable laws and regulations, it is required that submitters report only results suggestive of disease conditions listed in Title 17 Section 2505 (the Reportable Lab Result List). CDPH is not authorized to accept non-reportable lab results from the submitter.

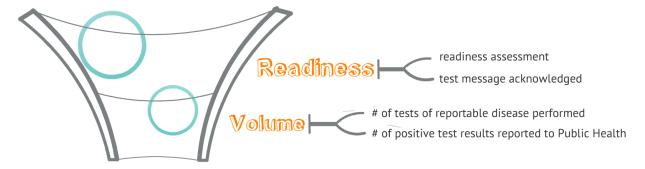## How do submitters bridge the gap in order to report to public health?

- Map local codes (if used) to standard codes (LOINC and SNOMED) for transmission to public health.
- Test outbound ELR message structure and vocabulary to identify message formatting issues. CDC provides a useful validation tool called MQF. https://phinmqf.cdc.gov/ After submitters begin the precertification process with CDPH, a CalREDIE ELR validation tool will be available.
- Develop submitter internal logic to trigger a report to public health, based on Title 17, Section 2505.

How does California's ELR2PH standard fit within the Federal guide? Submitters who can comply with federal guide may need to make some minor adjustments to meet the California standard, but messages meeting the California constrained guidance requirements will also meet federal messaging standards and requirements.

The HL7 Version 2.5.1 ELR2PH Implementation Guide: Electronic Lab Reporting to Public Health, Release 1 (US Realm) provides a national standard for ELR2PH, but it leaves room for variation in many data elements. The CalREDIE ELR2PH Companion Guide imposes California-specific constraints on some of these elements. An ELR2PH message that meets the CalREDIE ELR2PH requirement as determined by the CalREDIE ELR message validation process will not conflict with the HL7 Version 2.5.1 Implementation Guide for ELR. Conversely, a message that meets the requirements in HL7 Version 2.5.1 Implementation Guide for ELR2PH may need some additional refinement before it meets CalREDIE ELR2PH requirements.

How may interested submitters engage with CDPH to start submitting ELR2PH messages? There are four phases for submitters to begin the process of implementing ELR: 1) Enrollment; 2) Pre-certification; 3) Certification; and 4)Maintenance. The phases are outlined on the ELR website: http://www.cdph.ca.gov/data/informatics/tech/Pages/CalREDIEELR.aspx

Prioritization Queue: CDPH has started engaging with the highest volume submitters who best demonstrated technical readiness. We are currently engaged with large national labs and several California hospitals systems. While it is desirable to move all submitters to ELR, practical limitations will require that CDPH makes prioritization decisions. CDPH will manage the submitter queue to work for the greatest benefit to public health.

Readiness
- readiness assessment
- test message acknowledged

Volume
- # of tests of reportable disease performed
- # of positive test results reported to Public Health

Building bridges: CalREDIE team is developing various venues to foster communication among ELR stakeholders so that broader and more efficient implementation of ELR can be achieved. We want to build on the 'already established connections' as springboard for initiating the discussions and maintaining relationships with labs across the state.

Partnering with local health departments: As a part of our implementation strategy, we need to better understand the landscape of laboratory services in each jurisdiction. We recognize that LHDs are well positioned to help us build a bridge with laboratories providing services in each jurisdiction. We also recognize them as a vital link in the chain of laboratory– based notifiable disease reporting and should be involved from the outset as we make key decisions on ELR connectivity in your area. We are partnering with our locals to more effectively conduct research and targeted outreach, provide guidance and assistance with the enrollment process to labs.

CalREDIE ELR Website: http://cdph.ca.gov/data/informatics/tech/Pages/CalREDIEELR.aspx
We highly encourage everyone to visit our CalREDIE ELR webpage which contains essential ELR information such as laws and regulations, how to get started with ELR including the phased enrollment approach for an ELR submission, CalREDIE ELR2PH Companion Guide, categorized FAQs, Meaningful Use, Technical assistance information, and other useful resources.

What it is: The Data Distribution Portal (DDP) is a web-based report and export solution for the CalREDIE system. The goal of the DDP is to give CalREDIE users access to data and reports in a user-friendly format. The DDP will give users access to CalREDIE data in different formats – either in flat file exports or in a variety of different types of reports. The DDP will be populated with all CalREDIE CMR, RVCT and UDF data. CalREDIE users can then either download their data in a user-friendly format or view available reports. Some highlights of the DDP are below:

Improved Performance: Since the DDP relies on CalREDIE data in warehouse, the performance and capabilities are enhanced over the reporting capabilities found within the CalREDIE application. Due to the complex database design of the CalREDIE system, performance issues for large data sets have hindered the current data extraction process. The DDP resolves this issue by using a data warehouse design that is built for handling large sets of data. The data warehouse resides on its own servers therefore it has its own dedicated resources. As a result, the DDP can return an entire years worth of CMR data in 4 seconds!

Increased Variety of Report Designs: DDP reports can range from simple, static (canned) reports with tabular information, to complex cross-tabular reports with charts and graphics. Interactive charts with drill-down capabilities are also possible. In addition, when users are ready to download and save a report, the DDP can generate the report into a variety of formats, including the new Office formats for Word and Excel, as well as PDF, TIFF, and HTML.

DDP Allows Integration of Multiple Data Sources: DDP will integrate CalREDIE data with non-CalREDIE data (e.g., population). In the future, it will also be possible to access historical data through the DDP and combine this data with current CalREDIE data.

Access to the Portal: The portal will use the same security model as CalREDIE – users will have access to data that belongs to their jurisdiction and if applicable, will be limited to a disease grouping. The ability to login into the Data Portal will be based on the CalREDIE username and password. Every night, the DDP updates its login information to match the information in CalREDIE. Therefore, CalREDIE users will only have to remember one username and password to gain access to either CalREDIE or the Data Distribution Portal (DDP).

DDP Pilot & Rollout: The CalREDIE team is collaborating with three local health departments to help develop and determine feasibility of the DDP before implementation. Our pilot partners are helping us determine:
1.   The usefulness of CDPH's Data Extractions Format (system tab and UDF data)
2.   The common and specialized reporting needs of local health departments
3.   That the security model of the DDP works properly
4.   What "tweaks" can be made to the DDP to make it easier to use

After CalREDIE is upgraded to v10, CDPH will perform a Production DDP Pilot with selected local health departments for three months. If successful the DDP will be made available to all CalREDIE users. After all CalREDIE users have used the DDP for six months, CDPH will setup a user group to review findings and lessons learned for future development.

James P. Watt, M.D., M.P.H. Chief of the
Division of Communicable Disease Control

You have been a part of the DCDC family for 9 years. Before you were appointed as Chief of the Division of Communicable Disease Control, you were the Tuberculosis Control Branch Chief for many years. How has the surveillance landscape changed during your time at DCDC?

"The advent of a new landscape in health information technology really changes what is possible and what we can imagine for disease surveillance. We are looking at the landscape where laboratories increasingly have their data in electronic format and those formats are becoming standardized. We are looking towards a future where we have automated laboratory reporting that has the potential for making data more timely and complete,

making the work that we do for disease surveillance more efficient.   Similarly, providers are receiving incentives to implement electronic medical record systems that have the ability to communicate through standardized formats. As the health information exchange expands and becomes realized, we may potentially automate provider reporting so that it enables more timely, higher quality and more complete data including medical record data, that we did not have access to before. There are really a lot of opportunities out there, future provides a lot of promise for doing communicable disease surveillance in a way that is much more robust.

That is a long term view of the future, and there are a lot of steps along the pathway to get there. At DCDC we moving forward by identifying the steps that we can take right now given the current status of health information technology and our own constraints. We are really eager to talk to our partners to make sure that we are all on the same page and are working together to meet the ultimate objective of making our surveillance system as robust as possible.

One of the steps that we are taking is streamlining our current surveillance systems. Not so long ago we had all kinds of different freestanding systems and different ways information was coming to state from local health departments. The multiplicity of data inputs has made it difficult and costly for us to bring data together in one place and assure the quality and consistency of data. We are moving towards being as standardized as possible and CalREDIE is a valuable tool for that. It's a standard system that everybody can use. The data all come in the same way. We are really excited that so many jurisdictions have already joined into CalREDIE because it makes our surveillance much more syste-

matic and standardized, a really important first step for having quality data. We also operate with finite resources, so we need to move forward step by step. Our first priority has been to deploy CalREDIE to transmit communicable disease surveillance data from local health departments to CDPH. Once we've done that, it will free up resources to take other steps like deploying ELR and start bringing on some of the high volume laboratories in California. As we do this, we are aware that we need to work closely with local health departments to clarify how ELR will impact the work that we do. We are working with CCLHO to plan a meeting to explore these issues in more detail. We have received feedback from folks that some of the functionalities in CalREDIE for getting data out of the system are cumbersome and so another step we are taking is creating automated extract functionality so that we are pulling data out CalREDIE into a format that is more accessible and easier for people to use for epidemiologic and disease response purposes.   We will be sharing soon with our partners what that will look like. We believe it will meet their data needs to make the whole CalREDIE system as functional for all the users as possible."

How does the paradigm shift in the way we receive and consume data affect the way we think about communicable disease surveillance? How does it affect our business processes, roles and relationships? How does this affect the way we collaborate and communicate with our partners?

"For the last couple of years, we had a very operational focus and a very clear technical task. We needed to get this piece of software up and running, and ensure that the data quality was good, that users were able to access the information, that the website would not crash. We worked very closely with three pilot counties to do the pilot testing. We also engaged a subgroup of county representatives through the LSAC to talk about a lot of practical operational needs, which was very important.

We realize that we also need a standing venue for talking with local health departments about bigger picture issues about how changes in disease surveillance impact the work that we all do.

It is important to note that CalREDIE is the reportable disease information exchange. It's not just a piece of software that is V.10 that comes from Atlas. It is also an information exchange platform and a disease reporting strategy. It involves other pieces of software and other activities that all fit together to meet the needs of State, LHDs, laboratories, health care providers, and others who reported diseases. We're really interested in establishing a new communication venue where we can raise some of these strategic questions. Our plan is to establish a semi-annual strategic meeting with LHDs, and we are looking forward to having the first one of those in September."

Can you comment on the current and future scope of CalREDIE and opportunities for partnership?

"In thinking about the scope, there are a couple of issues. One issue is legal mandate. There are certain things that the State doesn't have legal authority to collect. LHDs also have the authority to decide on things they want to collect locally and there are mechanisms for LHDs to do that in CalREDIE.

Another issue is resources. We have limited resources and our objective is to have a high quality system for our highest priority things and right now that is human communicable disease events. Because CalREDIE is a robust platform that allows collection of various types of data, there is an opportunity for other entities who are interested in partnering with us to use the CalREDIE platform. Office of Environmental Health Hazard Assessment (OEHHA) has provided some resources to add pesticide illness. That's a win-win. They don't have to build a new system. Instead, they have dedicated some resources to CalREDIE to help in building the new functionality and as a result users will have a single system which is a benefit to everyone. We're certainly open to models like this one, but as we contemplate additions, our prospective partners may have to help support the cost of adding those additional functionalities to the system."
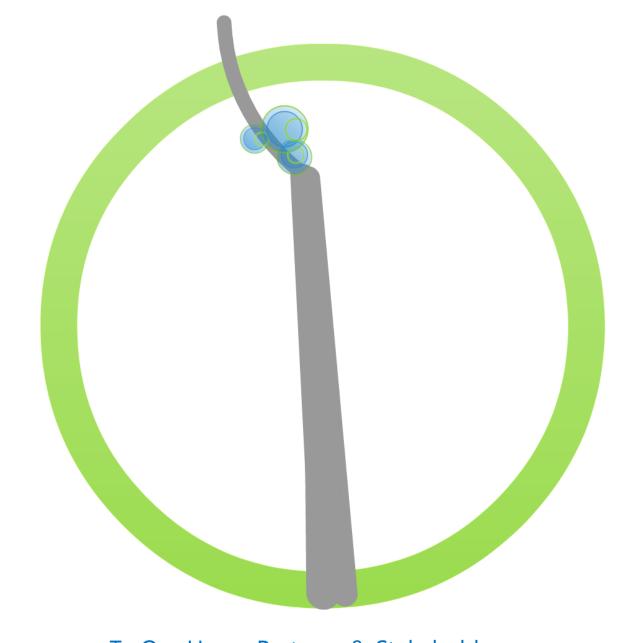
What is your vision for the division and how does it align with the new CDPH Strategic plan?

"The core challenge on the CDPH Strategic map is to leverage key opportunities to define and shape the future of public health in a changing environment. Health information technology is a rapidly

evolving field and we have great opportunities to define and shape the future of how we communicable disease surveillance in that changing environment. Thus, there's a great alignment with what we are trying to do and where the CDPH wants to go. And underneath that core challenge, there are a few goals. One is to integrate data systems to monitor and investigate health problems, another one is to maximize technology to support CDPH priorities, and yet another one is to expand and strengthen collaboration. The work that we are doing with CalREDIE supports all of these goals and aligns closely with the Department's Strategic Map.

Again the CalREDIE initiative is not about one piece of software, it's about a surveillance strategy that will take us into the future.

To be strategic and flexible, the idea of collaboration and partnership is going to be really important. It's critical that we have close strategic communications with LHDs and other partners about what are the data opportunities and needs, where are the challenges, and how do we move forward in a way that fits within LHDs' business practices and that provides really timely, high quality data for public health use."

To Our Users, Partners & Stakeholders
We appreciate Your TRUST & SUPPORT
CalREDIE-CDPH Team